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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,015	07/20/2004	Hiroo Matsunaga	Q82646	8516
23373 7590 03/20/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER MAKI, STEVEN D	
			ART UNIT 1733	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/502,015

Applicant(s)

MATSUNAGA, HIROO

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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- 1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-2-07 has been entered.
- 2) The amendment filed 1-5-07 and entered per RCE filed 3-2-07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In amended figure 1 filed 1-5-07, the illustration of belt 100 is new matter. It is acknowledged that the original disclosure describes "belt (not shown)". In other words, the original disclosure supports the subject matter of using a belt in the tire as shown in figure 1. However, amended figure 1 illustrates the belt 100 as having an short axial extent such that tread rubber 2 is illustrated as contacting belt 100 and carcass 18. The original disclosure fails to reasonably convey using a belt having a size and structure such that the tread rubber 22 is directly attached to the belt and the carcass 18. Furthermore, the original disclosure fails to reasonably convey positioning the ends of the belt 100 at the segmented boundary line for the shoulder as illustrated in amended figure 1 filed 1-5-07.

Applicant is required to cancel the new matter in the reply to this Office Action.

- 3) The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4) Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "a central portion of said tread rubber is attached to the carcass via a belt, a side portion of said tread rubber, said side rubber and said side wall rubber are attached directly to the carcass on the outer side of the carcass in the radial direction of the tire" (emphasis added). In the description of the background art, the original disclosure describes "...tread rubber 72 is press-attached, via a belt, to a tread side of the carcass, which is on the outer side of the carcass in the radial direction of the tire" (page 1 of specification). In all embodiments of the invention, the original disclosure describes "belt (not shown)". See for example page 15. The original disclosure also describes attaching tread rubber on the outer surface of the belt instead of directly attaching the tread rubber to the carcass. It is acknowledged that page 8 describes "... the tread rubber in an unvulcanized state, to each outer end portion thereof in a widthwise direction of the tire the side rubber in an unvulcanized state has

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been attached, is attached on the outer side, in a radial direction of the tire, of the carcass which forms the case...". This description is identified as being directed to the production method of the pneumatic tire according to claim 3. In view of the original disclosure as a whole, one of ordinary skill in the art would readily understand this description as being generic to attaching the tread via a belt on the outer side of the carcass instead of contemplation and possession of the specific concept of directly attaching the side portion of the tread rubber to the carcass. Furthermore, the original disclosure fails to offer teachings as to the specific structure and axial extent of the belt and thereby fails to support attaching both the side portion of the tread rubber and the side rubber directly attached to the carcass. The original disclosure is silent for example as to whether or not the belt has the specific structure of the belt shown in figure 1 of by Japan 703. In this figure of Japan 703, the illustrated belt has a size and structure such that the side rubber 9 but not tread rubber 7 contacts the carcass 2. In short, the original disclosure fails to reasonably convey that applicant had possession of the concept of directly attaching both the side portion of the tread and the side rubber to the carcass.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "an interface between said side rubber and said sidewall rubber is located within a ground contacting side of the tire" without adding appropriate language such as "the interface between the side rubber and the side wall rubber

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appears at the ground contacting side of the tire". The original disclosure supports the interface appearing at the ground-contacting side (the radially outermost point of the interface is at the ground contacting portion). However, the original disclosure fails to reasonably convey locating the above noted interface radially below the ground contacting surface of the tire. The omission of the interface appearing at the ground contact surface is therefore not supported by the original disclosure.

5) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7) **Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 101 (JP 6-336101).**

See figure 1 and paragraph 11 of machine translation.

With respect to "attached directly", note (1) the 112 first paragraph "new matter" rejection and (2) figure 1 of Japan 101, which shows the sidewall rubber 2 as being attached to the carcass (3,4), the soft side rubber 6 as being attached to the carcass (3,4) and the tread rubber 1 as being attached to the belt 8 wherein the width of the

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tread 1 is substantially the same as the width of the belt. In other words, this prior art rejection in this office action is made since it appears that the 112 first paragraph rejection regarding "directly attached" can only be overcome by deleting the "directly attached" subject matter.

With respect to the interface between the tread rubber and side rubber being within the ground contacting side, Japan 101 is considered to disclose the interface between the tread rubber and the side rubber as being at the ground contacting surface of the tread since Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved.

8) Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101.

Japan 101 discloses a pneumatic tire comprising a tread rubber 1, side edge rubbers 6, and sidewall rubber 2, a belt, a carcass and beads. Japan 101 teaches using the same composition for the side edge rubber 6 and the sidewall rubber. See paragraph 11 of machine translation. As shown in figure 1, the side rubber 6 is attached to the tread rubber, the carcass and the sidewall rubber.

With respect to "attached directly", note (1) the 112 first paragraph "new matter" rejection and (2) figure 1 of Japan 101, which shows the sidewall rubber 2 as being attached to the carcass (3,4), the soft side rubber 6 as being attached to the carcass (3,4) and the tread rubber 1 as being attached to the belt 8 wherein the width of the tread 1 is substantially the same as the width of the belt. In other words, this prior art

rejection in this office action is made since it appears that the 112 first paragraph rejection regarding "directly attached" can only be overcome by deleting the "directly attached" subject matter.

With respect to the interface between the tread rubber and side rubber being within the ground contacting side, Japan 101 is considered to disclose the interface between the tread rubber and the side rubber as being at the ground contacting surface of the tread since Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved.

Japan 101 is considered to anticipate claims 1 and 2. In any event: it would have been obvious to one of the ordinary skill in the art to locate the interface between tread rubber 1 and side rubber 6 and the interface between side rubber 6 and sidewall rubber 2 of Japan 101's high performance tire within a ground-contacting side of the tire (at the ground contacting surface) of the tread to reduce bending deformation at the interface and prevent separation of said side rubber and said side wall rubber at the interface since (1) Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved and (2) Japan 101 shows the interface between tread rubber 1 and side rubber 6 as opening at a "shoulder region" of the tire.

9) **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 as applied above and further in view of Sievers et al (US 4,556,376).**

As to claim 2, it would have been obvious to one of ordinary skill in the art to form Japan 101's tread 1 and side edge portions 6 by coextrusion since Sievers suggests coextruding a tire tread and edge strips by coextrusion to obtain satisfactory bonding.

10) Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 as applied above and further in view of Caretta et al (US 3433695).

As to claims 3 and 5, it would have been obvious to one of ordinary skill in the art to produce Japan 101's tire as claimed in view of the suggestion from Caretta et al to form a carcass on a rotary drum, apply the tread/ belt to the drum and then apply the sidewalls to the carcass and edges of the tread and apply other tire components using one drum. See figures 11, 15 and 16 of Caretta et al.

11) Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 as applied above and further in view of Japan 444 (JP 58-42444) and Caretta et al (US 3433695).

As to claims 3-5, it would have been obvious to one of ordinary skill in the art to use attachment preventing sheets to produce Japan 101's tire as claimed in view of the suggestion from Japan 444 (figure 3) to use "attachment preventing sheets", shape a carcass, and assemble sidewalls, tread and belt to the carcass to make a tire, which like that of Japan 101 has a "sidewall over tread" construction. Furthermore, it would have been obvious to one of ordinary skill in the art to form the carcass on a rotary drum and then use this same rotary drum to shape the carcass in view of Caretta et al's suggestion to use the same rotary drum to form a carcass and shape the carcass and thereby reduce the number of apparatus needed to build the tire.

Remarks

12) Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 1-5-07 have been fully considered but they are not persuasive.

Applicant argues that the amendment to the specification and claim 1 overcomes the 112 first paragraph rejection. Examiner disagrees since amended figure 1 filed 1-5-07 and amended claim 1 filed 1-7-07 contain new matter. The original disclosure fails to reasonably convey that applicant had possession of the concept of directly attaching both the side portion of the tread and the side rubber to the carcass.

13) No claim is allowed.

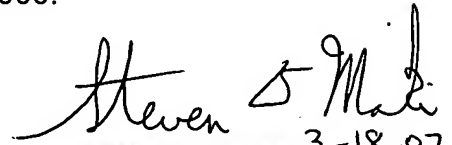
14) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
March 18, 2007


STEVEN D. MAKI 3-18-07
PRIMARY EXAMINER